

## More Than "If Time Allows": The Role of Ethics in AI Education

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### Abstract

Even as public pressure mounts for technology companies to consider societal impacts of products, industries and governments in the AI race are demanding technical talent. To meet this demand, universities clamor to add technical artificial intelligence (AI) and machine learning (ML) courses into computing curriculum-but how are societal and ethical considerations part of this landscape? We explore two pathways for ethics content in AI education: (1) standalone AI ethics courses, and (2) integrating ethics into technical AI courses. For both pathways, we ask: What is being taught? As we train computer scientists who will build and deploy AI tools, how are we training them to consider the consequences of their work? In this exploratory work, we qualitatively analyzed 31 standalone AI ethics classes from 22 U.S. universities and 20 AI/ML technical courses from 12 U.S. universities to understand which ethics-related topics instructors include in courses. We identify and categorize topics in AI ethics education, share notable practices, and note omissions. Our analysis will help AI educators identify what topics should be taught and create scaffolding for developing future AI ethics education.